

NOTEWORTHY PLANTS FROM IDAHO

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During the summer of 1939 the writer had opportunity to make extensive collections in Clark and Fremont counties, Idaho. Several specimens apparently represent plants previously not known to occur in the state and others represent range extensions within the state. All numbers cited are the author's own collections and, unless otherwise noted, duplicates of each number have been deposited in the herbaria of the Utah State Agricultural College, Logan, (UtS), the Missouri Botanical Garden (MB), and the University of Idaho, Southern Branch, Pocatello.

AGROPYRON SAUNDERSII (Vasey) Hitchc. is recorded by Hitchcock (4) from only two localities, Veta Pass, Colorado, and Salt Lake City, Utah. It was collected in Fremont County three times during the season: along the Idaho-Wyoming border near Squirrel Creek east of Ashton, 1686 (UtS, MB); along railroad tracks at St. Anthony, 1773; subalpine north slopes of Mount Jefferson, southwest of Henry's Lake, 1874. At the last mentioned station the species was growing intimately with *Agropyron Scribneri* Vasey, but without apparent intergradation.

AGROPYRON SCRIBNERI Vasey is recorded by Hitchcock (4) from Montana, Wyoming, Utah, and Nevada, among other states, but not from Idaho. It was collected on subalpine slopes of Mount Jefferson, Fremont County (1873).

CAREX HEPBURNII Boott is not recorded by Mackenzie (6) from Idaho although he mentions having seen specimens from all bordering states except Utah. The species was collected at 9000 feet on rocky, subalpine slopes east of Mount Jefferson, Fremont County (1891).

CAREX OCCIDENTALIS L. H. Bailey is recorded by Mackenzie (6) from Utah, Nevada, and southward. The species was collected under an open stand of limber pine, at 9500 feet, on a high ridge above West Camas Creek, north of Kilgore, Clark County (1443); it was associated with *Poa epilis* Scribn. and with several other species of *Carex*.

CARDAMINE UNIJUGA Rydb. is recorded by Rydberg (8) from Wyoming and Montana. It was collected in standing water an inch or so deep at the edge of Big Springs, Fremont County (1599).

SAXFRAGA OPPOSITIFOLIA L. is known in western United States from comparatively few stations. Fernald (1, p. 7) presents a range map showing collections apparently from the Wind River Mountains of Wyoming, Yellowstone Park and adjacent Montana, and again from what appear to be the Bitterroot Mountains, along the Idaho-Montana border. The specimen was found growing

in dense extensive mats at 10,000 feet on north exposures just below the continental divide a mile southeast of the summit of Mount Jefferson, Fremont County. It was almost entirely past flowering at the time of collection (August 1) and hence is represented by only a single scanty sheet (1906, UtS).

EUPHORBIA ESULA L. is a recent introduction from Europe. Hanson and Rudd (3) record it from two localities in Idaho, one from the panhandle at the north end of the state, the other apparently from the vicinity of Kilgore, Clark County. It was collected along the roadside near Medicine Lodge Creek, north of Small, Clark County, about forty miles west of the Kilgore station (1931).

PENSTEMON WHITEDII Piper subsp. *TRISTIS* Pennell & Keck is recorded by Keck (5) from the Salmon River twenty-three miles above Salmon City, and from several localities in Custer County, as far east as Mackay. This species was collected on an isolated sandstone outcrop in a limestone region north of Spencer, Clark County (1939); it was associated with *Hackelia patens* (Nutt.) Johnst., *Phacelia leucophylla* Torr. and *Castilleja fasciculata* A. Nels. It was not seen elsewhere in the area.

BRICKELLIA OBLONGIFOLIA Nutt. subsp. *typica* comb. nov. *B. oblongifolia* Nutt. var. *typica* Robins. Mem. Gray Herb. 1: 104. 1917.

BRICKELLIA OBLONGIFOLIA Nutt. subsp. *linifolia* (Robins.) comb. nov. *B. oblongifolia* Nutt. var. *linifolia* Robins., Mem. Gray Herb. 1: 104. 1917.

This subspecies is recorded by Robinson (7, p. 104) from Colorado, Utah, and southward, the Idaho area supposedly being occupied by subsp. *typica*. A collection from the south side of basalt rocks in St. Anthony City Park, Fremont County (1474) is apparently subsp. *linifolia*. A previous collection from the same station (687) is transitional to subsp. *typica*. It appears that subsp. *linifolia* is the more southerly representative of the species and that the collections cited above represent an extreme northward extension of its range. The habitat from which the specimens were taken simulates very closely what might be expected in hotter and drier more southern localities. In view of this difference in range var. *linifolia* Robins. may now be given subspecific status.

CHRYSOTHAMNUS NAUSEOSUS (Pall.) Britt. subsp. *GLAREOSUS* (Jones) Hall & Clem. is recorded by Hall and Clements (2) from southern Utah and northern Arizona. A collection from the United States Sheep Station, near Dubois, Clark County (1995), agrees with this form in the glabrous achenes and puberulent involucre, but is taller than reported by Hall and Clements (6 or 8 dm. instead of 3 dm.). A previous collection (854) from the same station was made in 1937. The plant is not generally dis-

tributed through the area, and was found only on a lava reef near the station headquarters.

CHRYSOTHAMNUS NAUSEOSUS (Pall.) Britt. subsp. *LEIOSPERMUS* (Gray) Hall & Clem. is recorded by Hall and Clements (2) from southern Utah, southern Nevada, and the borders of California. A form having slightly wider leaves than are accorded to this subspecies, but otherwise agreeing fairly closely with the description given by Hall and Clements, was collected on the southern exposure of an extremely dry limestone cliff below the forks of Irvin Creek, northeast of Argora (1965). It will be noted that both of the *Chrysothamni* referred to above have glabrous achenes, an uncommon character in *C. nauseosus*, and that both were collected in extremely dry rocky situations, more or less simulating the normal habitat of the plants in more southern areas. It is suggested that further exploration may reveal these supposedly southern forms to be more widespread than has been previously believed, occurring in hot dry areas often passed up by collectors as being unworthy of inspection.

CHRYSOTHAMNUS PARRYI (Gray) Greene subsp. *HOWARDII* (Parry) Hall & Clem. is reported by Hall and Clements (2) from Wyoming and adjacent states, but not from Idaho. This subspecies is apparently represented by a collection from Red Conglomerate Peaks, east of Argora, Clark County (1940). The plants, growing on bare rocks at 9500 feet, are much reduced and superficially resemble certain species of *Haplopappus* more than *Chrysothamnus*. The upper leaves are distinctly elongate and surpass the heads as in subsp. *Howardii* but the leaves are more nearly glabrous as in subsp. *attenuatus* (Jones) Hall & Clem. Other characters are more nearly those of subsp. *Howardii*, and the collection is with some hesitancy so referred.

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